

## 6 CAPACITY BUILDING FOR REGIONAL COOPERATION IN TWENTE

*Gert-Jan Hospers*

“One of the strong points of Twente is its advanced knowledge and research infrastructure”, “The region can be proud of its highly-developed higher education system”, “The UT is a little Stanford, contributing to the emergence of Silicon Valley along the Dinkel”... just a few quotations that highlight the regional involvement of the HEIs in Twente. In all recent reports, views and plans on Twente the higher education institutions are mentioned as key players. As we shall see, these statements are largely true. However, there are still opportunities to intensify the engagement of the HEIs with their region.

### 6.1 Mechanisms to promote HEI regional involvement

#### 6.1.1 Mechanisms

##### *Formal institutional co-operation*

The higher education institutions in Twente maintain contacts with regional stakeholders by means of partnerships, often in the form of signed agreements. Such agreements, for example, underlay the participation of the UT and Saxion in Kennis Instituut Stedelijke Samenleving (Knowledge Institute Urban Society – KISS), Career Centre Twente, Stichting Wetenschappelijke Opleidingen in Twente (Institution for Scientific Education – SWOT) and the Regionaal Platform Arbeidsmarkt Twente (Regional Platform Labour Market Twente – RPA).

Twente has a number of well-known companies and organizations that operate nationally and internationally. Together, they intend to position Twente as an area that is interesting to live and work in. This is done by means of Career Center Twente (CCT), which was founded by these companies and organizations. Saxion, SWOT and TSM are partners of CCT.

Besides this, Saxion and other stakeholders have signed collaboration agreements (see appendix H), e.g. with NIBRA (National institute for fire service and disaster management), Essent (regional energy supplier) and CARINT (regional organization for housing, welfare and care; CARE IN Twente). New agreements are in the making, such as an agreement between Syntens and Saxion to establish a business support desk at Saxion for SMEs.

##### *Supervisory and advisory boards*

The identification of regional needs by Twente’s higher education institutions mainly takes place by means of supervisory and advisory boards in which regional stakeholders participate. Often, but not always, the board members come from the regional business community (e.g. firms, lawyers) and the regional government (e.g. mayors, senior civil servants). Some faculties at Saxion and Twente University – mainly in the socio-economic domain – have boards in which qualified professionals from the region indicate interesting teaching and research opportunities. Examples are Saxion’s *Beroepenveldcommissie* (Professional Field of Action Committee) and its system of external examiners in legal, business and hospitality education.

##### *Regional innovation bodies and business incubators*

To exchange expertise and to cooperate the UT is particularly engaged in regional innovation bodies and business incubators, as exemplified by *Technologiekring Twente* (Technology Circle Twente – TKT), *Innofonds* (venture capital for techno starters) and the *Bedrijfstechnologisch Centrum* (Business and Technology Centre – BTC) at Enschede’s Business & Science Park. For a short time

##### **TWARANT**, see appendix G 18

TWARANT is a co-operative student project of ITC and the regional water authorities on earth observation techniques for regional water management.

Various MSc students will conduct a four-year research programme on how to monitor the level of ground water in the Twente area through relatively cheap mapping methods. Through such a system, the regional water authorities can anticipate low or high ground water levels. The project started this year, so there are no results at this moment.

now, both Saxion and the UT have cooperated with twelve CEOs of regional top companies in the so-called *Regionaal Innovatieplatform* (Regional Innovation Platform – RIP) with the ambition to put Twente on the map as a top technology region.

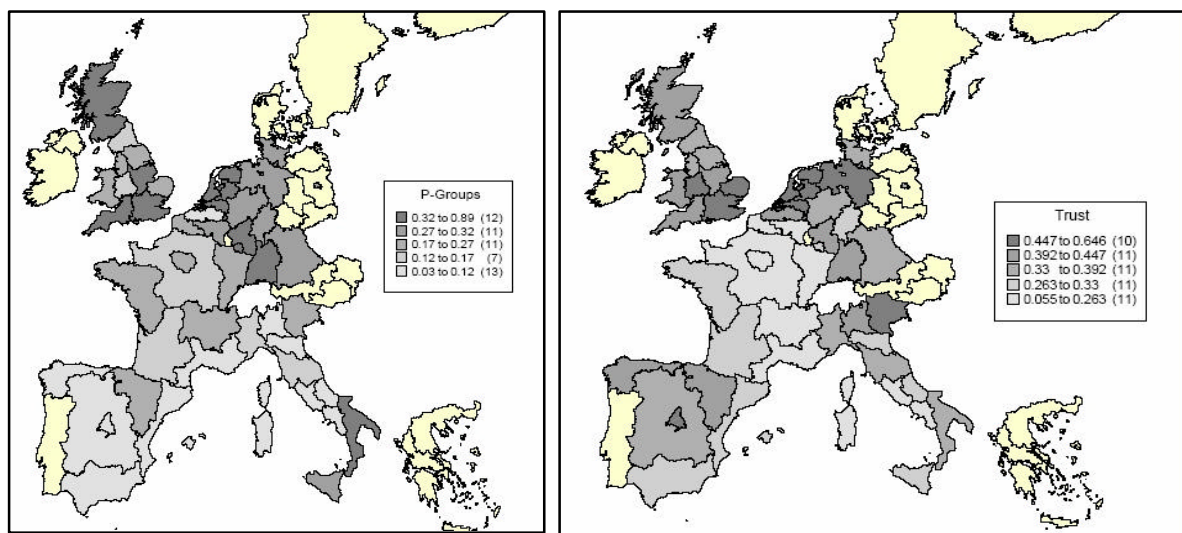
### *Informal networks*

In addition, there are informal networks in which senior lecturers and managers from regional organizations regularly meet to discuss joint internship and graduation. This informal network landscape of Twente is dense: in fact, within Western Europe the region has the highest participation in social and business networks. 89% of the people participate in social networks, the West-European

Again, East Netherlands has the highest score in trust levels of Western-Europe: in the region 65% of the people say that they trust other people in general, while the average is only 35%.

average, however, amounts to 26%. This high network density goes hand in hand with a high level of mutual trust in Twente. See figure 6.1 (where P-groups (Putnam-groups) refer to networks). This large stock of ‘social capital’ as highlighted by Putnam et al. (1993) pays off. The Business & Science Park near the UT, for example, is successfully managed by an informal network – thus saving the need for an expensive management.

**Figure 6.1** Networks and trust in Twente vis-à-vis the rest of Western Europe



Source: Beugelsdijk (2003)

### **6.1.2 Mapping the knowledge resources**

#### *Labour market information*

Despite the regional engagement of Twente’s higher education system, few audits have been undertaken to map the whole range of knowledge resources in the region. In fact, only the *Regionaal Platform Arbeidsmarkt Twente* (see above), housed at the office of the Region of Twente, takes stock of the expertise and skills of the regional population by publishing a report with the latest facts and figures on the regional labour market each year.

**Projectweek**, see appendix G 14

Project week is a real life simulation of technical problem solving for technical students. Companies from the region submit a specific technical problem and pay the UPE for a proper solution. Two student teams will be deployed to address each problem. The teams work in a project organisation consisting only of students. At the end of the week, each team will give a presentation of their solution to the problem. Not only is this form of action learning an energiser for students, but also companies find about 70% of the solutions more or less useful.

In 2005, five hundred students participated in thirty-five projects from thirty different companies. It was our tenth "Project week". This time, eight German companies participated -as well as a few German students.

#### *Survey of research infrastructure*

When it comes to research places and spaces and the accessibility of the research and learning infrastructure for new innovative initiatives, however, regular audits are carried out. Such audits are often required by European, national and regional governments and are used as a basis for innovation subsidies. Surveys of the research infrastructure, notably at the UT, are made by departments at the higher education institutions themselves (e.g. by the  *Holding Technopolis Twente – HTT* and the *Netherlands Institute for Knowledge-Intensive Entrepreneurship – NIKOS*) or by external parties, such as private and public consultancy organizations.

The results of such surveys are also employed to highlight the key role of the higher education institutions in Twente. This was true already twenty years ago, when the *Bedrijfstechnologisch Centrum* (Business Technology Centre) was established thanks to its links with the University of Twente. Also in recent views of all relevant policy bodies (national/

provincial/ regional/local) the advanced knowledge infrastructure in Twente is cited as the engine behind the region's development. Examples of these views include the national policy document *Pieken in de Delta* (PinDa), the position paper of the regional *Regionaal Innovatieplatform*, the region's economic development programme *Regionaal-Economisch Ontwikkelings Plan Twente* (REOP) and the strategic vision of Network City Twente.

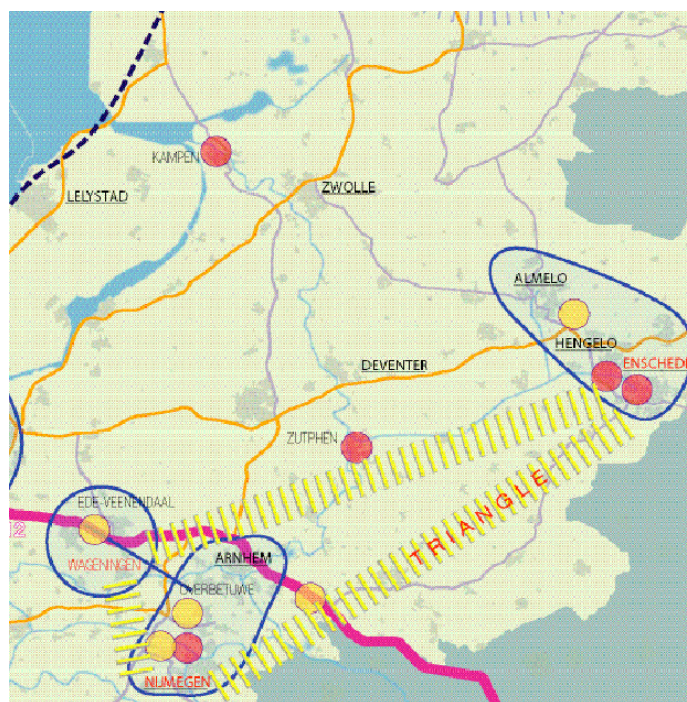
Among these, especially the recent policy document *Pieken in de Delta* is important, as it recognizes Twente as one of the five hot spots in the Netherlands in the field of innovation (See figure 6.2). The highly developed knowledge infrastructure as well as the region's high absorptive capacity for innovation subsidies are nationally seen as key assets of Twente and have played a role in the recognition of the region as a hot spot. As proof of this, the TOP programme is often mentioned, providing support to engineers that want to set up a business (see section 6.3). Another recent example illustrating the high absorptive capacity of Twente in the field of innovation is the popularity of Innovation Vouchers (free consultancy tokens) among regional SMEs.

**Sciencia**, see appendix 16

Sciencia Knowledge Centre GGZ is a centre for expertise in mental health in Overijssel bringing together UPEs and all mental health bodies in Overijssel, excepting those concerned with addict care and forensic psychiatry. Through a systematic approach to projects, Scienza seeks to contribute to safeguarding the expertise and skills of mental health staff in order to improve the quality of care.

The activities of Scienza focus upon implementation and transfer of expertise. This is achieved through organising workshops, training and education - and conducting applied research independently. Through a platform for information exchange and provision of tailor-made education programmes, the centre has been successful for three years. A Scienza lecturer has for instance been appointed and workshops and day seminars on certain issues have been organised. Parallel to that, the conceptual 'Innovation Contingency Model' designed by the Scienza *lector* is operated throughout the region. Thus synergetic processes are generated in the triangle of practice - research - education.

**Figure 6.2:** The innovation hot-spot Twente



Source: Pieken in de Delta, 2005

### **6.1.3 Financial resources**

#### *Funding higher education*

Only a few financial resources from the region are available to support regional engagement by Twente's higher education system. Obviously, public or private organizations often outsource contract teaching, research and consultancy to adjacent knowledge institutions. Funding higher education, however, is mainly a matter of the national government; for that reason there is no structural or legally enforced regional funding mechanism.

#### *Professorships and lecturer positions*

By way of exception, private stakeholders from the region of Twente act as a sponsor for professorships and lecturer positions at the regional higher education institutions. The UT, for example, has a part-time professor in textiles technology associated with the research institute *Sport and Leisure*. Royal Ten Cate, a regional top company working in textiles technology and advanced materials, finances this specialized chair. Their formal partners, in turn, support some Schools of Saxion. Employees of these organizations provide places for internships and hold guest lectures, but they do not have financial responsibility for Saxion's activities.

#### *Awards*

Finally, a handful of firms and public bodies in Twente award annual prizes for interesting final theses or valuable community work by students in regional higher education. Examples of such regional competitions are the *Thesis Award* attributed by the Industrial Circle Twente IKT and an Euregional thesis award by regional law firms.

### **6.1.4 Knowledge valorization**

#### *3TU programme*

For the past few years, the national government has put more emphasis on the regional function of higher education institutions. Although the knowledge institutions in Twente already have a good

reputation for being regionally engaged, new initiatives have been developed to improve the connection with the region. Within the national *3TU programme Federatieve Technische Universiteit* (Federative University of Technology), in which the technical universities of Twente, Delft and Eindhoven cooperate, the UT enhances activities in the field of knowledge valorisation, i.e. the transfer of knowledge to the market. For this purpose in 2010 a *3TU Innovation Lab* will be in operation with the task of supporting the regional business community, promoting entrepreneurship and pursuing a more active patent policy. Anticipating this lab, the UT is now extending its successful past performance in entrepreneurship promotion.

#### *Lectoraten and kenniskringen*

The results from the increasing national attention for regional engagement can also be observed at Saxion, Edith Stein and the AKI: backed with money from the Ministry of Education these institutions have been able to set up *lectoraten* and *kenniskringen* (knowledge circles) with a regional spin-off, for example in sustainable energy, educational support and art & technology. These initiatives underline the impression that there are still opportunities to enlarge the regional engagement of the Twente higher education system. In a recent 'letter of intent' of Saxion, we can read indeed that the institution wants to anchor itself in the region. In this respect, seven spearheads are formulated:

- Establishing partnerships with regional SMEs and stimulating/facilitating student entrepreneurship;
- Developing activities in industrial crossroads technologies (industrial design and health technology);
- Taking advantage of the dynamics in care and welfare, a sector in which the region has specialized;
- Focusing on tourism and town & country planning, being issues which are relevant for the region;
- Paying attention to sustainability as a cross-cutting theme for economy and ecology;
- Promoting safety as a theme requiring multidisciplinary attention at micro and macro level;
- Being recognized as an expertise centre on German-Dutch relationships (owing to intensive cross-border linkages between Saxion and Germany).

#### *Regional dimension*

Concrete activities that are undertaken under the heading of these spearheads are regular contact with and consultation of regional stakeholders, the formation of new knowledge centres and *lectoraten* with a regional spin-off and the permanent participation by the management of Saxion in regional networks. Last but not least, participation in studies like the one in hand is a measure that should contribute to a larger embeddedness of Saxion in the region. The purpose of the promotion of these spearheads is a greater contribution to economic vitality of Twente and even the East of the Netherlands. As has become clear from this letter of intent, Saxion is really trying to embed itself more deeply in the region in which it is based. Without a doubt, the recent set-up of *lectoraten* and *kenniskringen* will offer a significant contribution to this process of regional anchoring. Besides

#### **Sustainable Houses,** see appendix G 17

Sustainable Houses is a research project involving practical cooperation amongst housing corporations, the university and students. The project aims at the development, demonstration and implementation of a new concept for sustainable apartment houses.

During this large project, students practice their research skills in a very realistic way. The current phase involves preparation for a demonstration project to test the viability of the concept, monitoring schemes and expertise dissemination programmes. The final phase, which begins by 2005 and ends by 2007, consists of the actual monitoring, concept fine-tuning and dissemination of expertise. As the project has only lately begun, no results can as yet be shown.

#### **Minor AMT,** see appendix G 11

Art, media and technology (AMT) module is a specialist educational module for technical and arts-oriented students. It aims at connecting art with information science and vice versa. Technologically orientated students become aware of artistic approaches, which provide them with a wider view. Arts students are confronted with a more systematic approach and new sources of knowledge. Through working together on various projects and assignments, students also learn from each other. This specialist programme is open to students from AKI, Saxion and UT. The programme is now in its sixth year.

the *lectoraten*, there are several initiatives from the HEI's where the regional dimension is shown. These are stated as Best Practices throughout this chapter.

### 6.1.5 Engagement arrangements

#### *Engagements reviews*

There are structural regional processes to regularly review present engagement arrangements between the knowledge institutions and the region in which they are based. At a national level, of course, the success of these institutions in regional involvement is part of accreditation procedures. Also the earlier mentioned policy documents (e.g. *Pieken in de Delta*) are based on subsidy information and results from interviews on the regional engagement of the higher education institutions. Reviews on a regional basis encompassing the whole regional higher education landscape have not been developed recently - except for the one in hand. There are reviews on specific topics, as mentioned in 6.1.2.

#### *Provincial and local government*

In case of earmarked subsidies from the provincial or local government, an 'engagement review' might take place. This does not mean that the government does not show an interest in the regional activities of the higher education system: good practices in this field are disseminated widely across the media with the UT's successful *TOP programme* (see chapter 3), ITC's DUPR-project and Saxion's *EMOTIS programme* (a cross-border, i.e. Dutch-German, project in professional education) as prominent examples. Due to the high informal network density, the channels between higher education institutions and the provincial/local government are not always formalized. Besides formal links in the form of agreements, mechanisms to coordinate the regional role of higher education institutions are informal as well. Managers, lecturers and researchers from the higher education institutions, for example, participate in social networks, business clubs and local politics and thus also have easy access to information about regional needs.

#### *Coordination bodies*

The *Beroepenveldcommissies* at Saxion mentioned above and a similar body, the *Werkveldcommissie* at Edith Stein, can also be seen as forums where regional interests in a certain field of profession are coordinated in an informal way. *Saxion Knowledge Transfer*, *Holding Technopolis Twente*, *Fast Forward* and *HBO Job Service* coordinate activities for regional engagement in a more formal way: the first two knowledge valorisation organizations try to match the available expertise at the various faculties with regional demand for knowledge, while the latter two initiatives try to facilitate the transition from education to the labour market according to regional needs. *Fast Forward*, in which Saxion cooperates with the regional development agency Oost NV and PLP Communications, offers talented graduates the opportunity of a bi-annual traineeship in well-known regional companies and institutions. Also *HBO Job Service* – a joint venture of Saxion and Randstad – tries to ease the transition from education to work, in this case by means of regional employment finding. A more specific initiative is the *Verticale Ondernemerskolom Twente* (Vertical Entrepreneurial Column Twente – VOKT) in which the city of Enschede cooperates with all types of public education in the region to realize a continual learning route from high school to academic education for pupils interested in entrepreneurship.

*Fast Forward* is an innovative way for the matching of high potential graduates (trainees) and companies/enterprises/municipalities. The latter are willing to contribute to the development of trainees management competences during a traineeship of eight months, the former is willing to fulfil a special task where management competences are part of the game.

**DURP**, see appendix G 4

The Dutch Ministry of Housing, Spatial Planning and the Environment DURP project (*Digitale Uitwisseling Ruimtelijke plannen* / digital exchange of spatial plans) allows for the exchange of digital physical plans. The ITC "DURP-base maps" project, recently initiated, investigates how the base maps of these physical plans can be designed so as to provide optimal support for the exchange and integration of physical plans. This four-year project examines the way base maps should and can be defined and generated in an Internet environment, in order to support the auditing of physical plans at all levels (municipal, provincial and national).

### 6.1.6 Regional community infrastructure

#### *Transport*

For the sake of completeness, we will deal with transport here, although this issue is addressed in chapter 5 as well. Obviously, for their operations the higher education institutions in Twente make extensive use of the existing regional community infrastructure. This can be observed immediately when looking at the regional transport infrastructure: during weekdays the trains to and from the cities in Twente and the local buses are filled with students that benefit from free public transport by using their *Openbaar Vervoerkaart* (Public Transport Card – OV). Without these students, it is questionable whether Station NS Drienerlo near the university campus would have been profitable. Not only students, but also employees of Twente’s higher education system are encouraged to use regional public transport. Employees from Saxion, for example, are obliged to travel by train between the locations Enschede and Deventer, while the parking space around Enschede’s City Campus has been kept deliberately limited so as to provide an indirect incentive to use public transport. Also the UT, the AKI and Edith Stein have schemes stimulating their personnel to use the train and bus instead of their car.

#### *Sharing facilities*

Besides the regional transport infrastructure, students and staff of the higher education institutions in Twente employ energy services and objects in the region’s built environment. After a major fire in one of the university’s buildings, for example, the faculty BBT was housed in a building on the Business & Science Park outside the campus. In case of major events like conferences, openings and network meetings the regional knowledge institutions sometimes make use of public buildings like museums, theatres and other urban amenities. In turn, for their day-to-day needs, people from the region have restricted access to the infrastructure of Twente’s higher education system. Amateur musicians and artists can rent training rooms and enjoy concerts in the Vrijhof and Saxion’s Conservatoire. Also some sports facilities and associations at the UT are open to the public, such as the open-air swimming pool and the cinder tracks. The campus and its culinary and shopping facilities are free to access as well. Meanwhile, the university’s green, park-like surroundings have turned out to be a popular public place for walking and recreation. Especially Saxion is active in offering its facilities to other groups. The synagogue in Enschede, for example, has been using rooms of the Stadscampus, while police are training in its sporting facilities. Saxion also takes part in a regional glass fibre network of fast Internet exchange, thus raising the network’s density and effectiveness. Other examples of facility sharing in the cultural domain are dealt with in chapter 5.

#### **Fast Forward**, see appendix G 5

Fast Forward is an innovative way of matching high potential graduates as trainees with companies/enterprises/local authorities, which undertake in the course of eight-month apprenticeships to contribute to the development of trainee support competences whilst the trainees are prepared for a special task involving managerial competence.

During their final year of study, the students are informed about the opportunities provided by the Fast Forward Programme. Specialists from the Fast Forward office select applicants after their graduation and match the demand of companies with the capacities of the students. Over a two-year training programme, the apprentice will be trained and educated according to a tailored programme, with the emphasis on management skills and competences. During this period, the apprentice has eight-month work assignments with three different companies. In addition, s/he attends interactive workshops aimed at improving general, social and communicative skills and attitude.

This programme results in highly qualified young professionals and seems to be an answer to the regional need for innovative leadership and management. In five years of the programme’s existence, 137 apprenticeships have successfully been completed with 67 different employers, thus demonstrating the high level of mutual satisfaction. A minority of three apprenticeships have failed because of a mismatch in expectations. So far 95% of former trainees has now a job in the region!

## **6.2 Promoting dialogue and joint marketing initiatives**

### **6.2.1 Formal mechanisms**

#### *Regional platforms*

There are a few formal mechanisms in Twente to promote communication and dialogue between the higher education institutions and relevant stakeholders in the region. At the highest executive level, regional platforms have been set up to facilitate the dialogue between key decision makers from education, business and politics in the region, like in the field of urban issues (KISS), scientific education (SWOT), the labour market (RPA), technological development (TKT), business incubation (BTC) and regional innovation (TIP) (see the section before, where we dealt with these network organizations in more detail). These and other regional forums are important, as they may play a role in setting new regional and teaching programmes.

#### *Research advisory boards and committees*

At the faculty or department level, in some cases research advisory boards and professional committees have been established in which regional stakeholders can draw attention to regional issues. Also the system of external examiners at Saxion and its earlier mentioned *Beroepenveldcommissies* can be placed in this faculty/department category of regional dialogue.

### **6.2.2 Informal contacts**

Next, individual lecturers and researchers are often informed about regional issues in their contacts with firms and organizations offering internships to students. Thus, the majority of inter-organizational contacts on regional issues take place in an informal way. Last but not least, we should mention the important role of informal, non-business networks in promoting regional dialogue and communication. These networks, which are often hidden from view, act as a kind of regional lubricant. Making use of such networks is way of working in Twente that is a result of historical factors and that is place-specific. Remember that the area traditionally ranks among the regions in Western-Europe with the highest degree of what has been called 'social capital': 89% of the people in Twente are members of a social-cultural association, while the West-European average in this domain amounts to only 26%.

### **6.2.3 Representation in public and private bodies**

Staff members of the higher education institutions are well represented in public and private bodies in the region. Depending on their position in the hierarchy, specialization in teaching or research and their willingness to engage in regional issues, they are sometimes asked to take part in advisory boards of regional firms or (semi) public bodies. On a more voluntary basis, some staff members choose to be involved in local/regional politics. It is striking, for example, to observe how many city and provincial counsellors are linked to the regional higher education institutions, be it by training (public administration) or in another way. The representation of staff members is not monitored as long as these jobs are unpaid. If the jobs are paid, then staff members should report their extra duties to their institution's administration.

### **6.2.4 Joint marketing initiatives**

Although the higher education institutions are not formally involved in regional marketing campaigns, they play an indirect part in it, just because Twente is often promoted as a 'knowledge region'. In the campaign *Tijd voor Twente* ('Time for Twente'), for instance, managers from the knowledge institutions, acted as 'regional ambassadors'. When it comes to promoting Enschede as a student city, however, there is a clear collective educational initiative: this is the *Platform Enschede Studentenstad* (Platform Enschede Student City – PEST) that promotes Enschede as a vibrant place to study by financially supporting youth events and other city marketing projects.



### 6.3 Evaluating and mapping the impact of the regional HEI system

#### Teaching and research programmes

When starting a new teaching or research programme, the higher education institutions in Twente regularly carry out a SWOT analysis or other studies (e.g. an image research) among regional stakeholders. At Saxion, Edith Stein and the UT this has become common practice over the years. The results of such audits, which are also used for internal quality management purposes, give insight into the regional impact of the institutions, but certainly cannot be regarded as a structural regional evaluation tool. For example, the awareness of the regional role of the higher education system is raised not so much by audits, but rather by news items in the media. Often press releases, brochures and information events are used to attract regional attention for the activities of the knowledge institutions. Examples of such special, open information meetings at Saxion abound and vary from sessions around the bachelor course in podotherapy, ICT administration and safety studies.

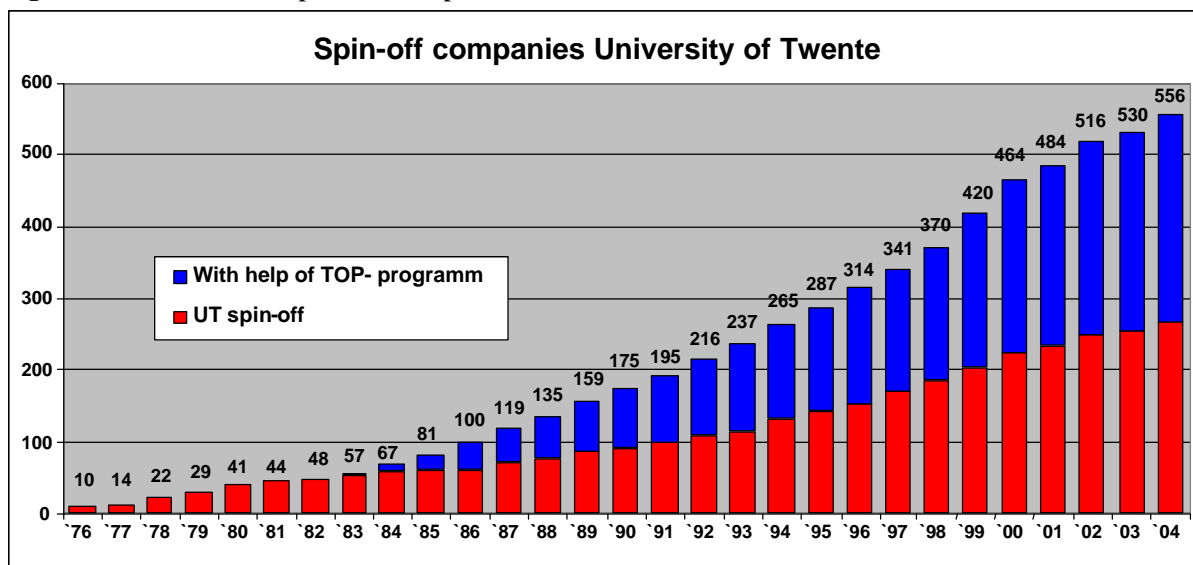
#### General evaluation studies

General evaluation studies on the economic and socio-cultural impact of the knowledge infrastructure on the region are scarce. So far, only the UT has undertaken general and specific audits on its economic role in Twente. General evaluation studies include *Florax (1987)* and *Nijboer (1997)*. As the last study explicitly builds on Florax (1987) and as it is the most recent one, we briefly discuss its results here. In his report Nijboer (1997) distinguished input effects (direct effects of the university, its personnel and students), output effects (effects of departing personnel, alumni, regional knowledge and community service) and attraction effects (remaining effects such as the attraction of new

On the basis of data provided by Statistics Netherlands and the province of Overijssel Nijboer estimated that the UT had a regional impact of 3,580 full time jobs in the year 1995. This total figure was made up of two parts: direct employment of 2,300 jobs and a regional employment effect (indirect employment) of 1,280 jobs.

companies to the university and the start-up of new firms). Nijboer notes, however, that the university's indirect employment effect in Twente may be greater, because the underlying output and attraction effects probably were underestimated due to measurement problems. Below, in figure 6.3, we can see how the TOP programme has contributed to an increasing number of academic spin-offs in the region of Twente. About half of the new firms have been set-up without the TOP programme; the other half would not have existed without this particular subsidy scheme.

**Figure 6.3** Numbers of Spin-off Companies at the UT



Source: Nikos, UT 2005

### *Specific audits*

Besides this general economic evaluation study, the UT has carried out specific audits on the results of its policy to stimulate the start-up of new ventures. As discussed above, the *TOP programme* has encouraged and helped prospective entrepreneurs with sound business plans to start their own business (see chapter 3) since 1984.

## **6.4 Institutional capacity building for regional involvement**

### **6.4.1 Mission statements**

Except for the ITC – being an international university – and the AKI, all higher education institutions in Twente consider regional engagement of paramount importance. The AKI has indicated that it wants to be involved more in regional issues. The connection with the region should be enhanced. Cooperation with other HEIs and industry should be encouraged. In all recent strategic plans of Saxion, UT and Edith Stein this regional role is explicitly part of the mission statement. As the reader could observe in the above, a lot of activities and initiatives are set up to implement this regional mission in reality. It must be said, however, that this strategic importance of regional involvement has not been translated yet in all layers of the higher education institutions – despite the advanced communication structures (like ICT applications such as intranet) the decision makers have at their disposal.

### **6.4.2 Interpretation of mission statements**

#### *Leadership and management*

Academic leadership and central management at the institutions have not been altered significantly to engage with region needs. Managers in the regional higher education system are attracted not for their experience with regional issues, but rather on the basis of their management qualities. The question of course is if such an alteration is needed indeed: after all, for most higher education institutions in Twente regional engagement is part of their mission statement. Moreover, given the high regional ambitions the institutions have set themselves, there are already a number of formal channels of communication between regional stakeholders and the knowledge institutions. Still, however, it is surprising that for taking regional decisions in the institutions no officer is fully responsible.

#### *Regional focus and responsibility*

The institutions do not have specific internal mechanisms, posts and offices with an explicitly regional or local focus or responsibility. There are of course exceptions to this rule: the UT's *TOP Programme* and Ten Cate-professorship, as well as Saxion's *Fast Forward* initiative being exceptions. Regional engagement rather takes place on an ad-hoc basis by means of internships, guest lectures and commissioned third-party research. To be sure, at all higher education institutions in Twente, there is room for adjunct appointments for people from the region. So far, no structural policy for that existed. The recent establishment of part-time associate professorships with a regional function (e.g. the *lectoraat KIO* (Knowledge Intensive Entrepreneurship)), the expertise centre "Technology for Health" and the involvement of the institutions in regional debates (e.g. in discussions about the *Muziekkwartier* (Music Centre) in Enschede), however, indicate that Saxion, Edith Stein and AKI have taken their regional mission more seriously.

#### **Technology for Health**, see appendix G 1

The Expertise centre Technology for Health (*Kenniscentrum Technologie voor Gezondheid*) is a cooperation between regional specialists in the fields of health technology and higher education. The objective is to stimulate and initiate research projects and educational activities in the common field of health, health care and technology. By doing so, the centre tries to solve practical clinical questions in a multidisciplinary way. This increases the awareness and understanding of the specific expertise of the cooperating partners. The centre, established in 2005, has initiated already seven research projects.

An educational module focusing on this subject will be in place by September this year.

## **6.5 Human & financial resources management and organization culture**

Although the regional dimension is explicitly incorporated in the mission of most HEIs in Twente, this dimension is not really reflected in the human & financial resources policy and organization culture of the respective institutions.

### *Human resource management*

There is no regional human resources policy yet: lecturers and researchers, for example, are recruited from everywhere in the country and are, for example, not obliged to move to Twente. In practice, however, it turns out that a large number of employees, especially in supporting functions, have their origins in the region of Twente.

### *Financial resource management*

Additionally, at none of the higher education institutions in Twente, staff is trained in or rewarded for activities that have to do with regional engagement. Especially at the UT (e.g. in its social sciences departments) such community work is still seen as not academic and has connotations with parochialism. There are indications, however, that the university wants to change this attitude for budgetary reasons. While the UT could afford to be internationally oriented during the 1990s, now the university seems to become more aware of its regional function – just as in the 1980s when the economy of Twente was in a crisis and the TOP programme was established. The background of this growing regional awareness is that knowledge institutions in the Netherlands will have to finance themselves more with third-party funds coming from (regional) stakeholders. Thus, a stronger orientation to the market could imply a stronger orientation to the region as well.

## **6.6 Organizational culture**

To be able to make this transition in organization culture, structural changes in the current financial organization within the higher education institutions might be needed. At the moment, in all of the higher education institutions in Twente regional funding streams – be it European, national or regional funds – are largely managed in an ad-hoc manner. Developing more long-term financial mechanisms and procedures for third party funding may be needed also for generating more resources for regional engagement. At the moment, regional funding streams are used in a rather incidental and bottom-up way, e.g. by individuals with an interest in the region or through personal contacts. The differences in organization culture between the commercial world and the educational world certainly contribute to the lack of interest in regionally focused research. This is visible in internships and master-thesis-trajectories, in which the expectations of the internship organization (application) and the higher education institutions (theory) still conflict on a regular basis. There are signs, however, that things will change – and are changing indeed. As a matter of fact, in the future, knowledge institutions will increasingly have to finance themselves with third-party funds coming from (regional) stakeholders. Anticipating this development, some institutions at the university (e.g. the Institute for Governance Studies) and within Saxion (e.g. the knowledge circles) invest more research capacity on issues with regional relevance.

## **6.7 Conclusion**

The majority of higher education institutions in Twente – the UT, Saxion and Edith Stein – feel that they should play a considerable regional role. Consequently, they have explicitly put regional engagement in their strategic plans. On paper, this regional mission has worked out perfectly: the higher education institutions have declared to fill the gap that emerged after the decline of the textiles industries since the sixties. Also in the last years the regional mission has been emphasized more and more. In practice, it must be said that the regional activities of the institutions have been of paramount importance indeed. Take for example the TOP programme that generated a lot of new firms and jobs in the economy as well as the spin-off of TOP, such as the Technology Circle Twente and other networks.

At the same time, the mission of strong regional engagement is still not completely reflected in the human and financial resources policy and the organization structure and culture of the higher

education institutions in Twente. Especially the UT is trying to find a balance between being a global player on the one hand and a local stimulator on the other. Therefore, the local population cannot escape from the impression that the university is not only geographically, but also psychologically set somewhat apart from the cities in Twente. As a matter of fact, until recently, academic research on regional issues was not strongly encouraged, as it was confronted with a sense of parochialism. This applies less to the institutions for higher professional education, although recently established associate professorships with a regional function show that much can be done yet to improve regional engagement.

Perhaps one could say that Twente's higher education system is still wrestling with the 'regional engagement challenge': the knowledge institutions claim that they feel strongly about regional involvement, while in implementing this mission not many people at the organizations are in charge yet. If we can trust what we see, however, this challenge is taken up more and more. In addition to the associate professorships and knowledge circles in the region's professional universities, recent agreements between the UT with local companies (like the Grolsch brewery and Ten Cate fibres) and regional bodies (like the Regional Innovation Platform) demonstrate that there are still opportunities for intensifying regional engagement. If the higher education institutions stay on this track, we think, the popular statement that 'Twente is a knowledge region' is going to make sense even more.

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